



calorex®

Swimming pool dehumidifiers

For indoor pools and spas

- Full range of floor standing and wall mounted dehumidifiers
- Heat recovery and space heating options
- Save up to 75% on running costs and carbon emissions

CALOREX DEHUMIDIFIERS

The challenge

Atmospheric air contains moisture which when left unchallenged can lead to mould or possible structural damage or collapse.



Why dehumidify?

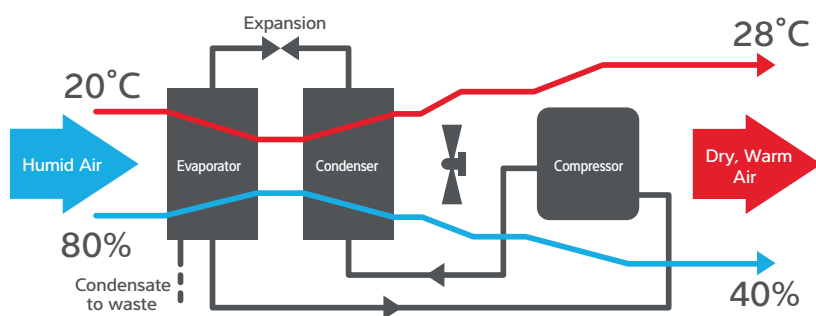
An indoor swimming pool is a wonderful leisure and exercise environment but the evaporation from the water surface poses real problems for the building structure. Prolonged exposure to high humidity causes walls, decorative finishes and roofs to deteriorate rapidly. Personal comfort is also of prime importance. High humidity causes personal discomfort and unless the environment is controlled, bathers will be prevented from enjoying the swimming pool. Bathers appreciate comfortable humidity in the range 55%-65%.

Condensation

Left unchallenged, it can be a major problem in indoor swimming pools and spas. Condensation, formed as water evaporating from the pool or spa surface, pushes up air humidity and can eventually lead to mould or even structural damage or collapse. In the past, the conventional approach to combating condensation came in the form of wasteful air extraction from the pool hall. Nowadays, the science of humidity control has moved into another realm. The advanced range of Calorex dehumidifiers provide an efficient and economical solution.

Enhanced energy conservation and efficiency

How a Calorex dehumidifier works



The process of dehumidification involves moisture-laden air being drawn into a dehumidifier where the air passes across a refrigerated coil. The air is rapidly cooled below its dew point, condensing the water vapour and recovering its latent heat energy for re-use. The cooled air is then passed across the condenser where it is reheated and returned to the served area at the required lower relative humidity.

The problems caused by excess moisture:

- Corrosion
- Building deterioration
- Uncomfortable environment
- Condensation
- Damp
- Mould and mildew
- Misting

The solution

The answer to this problem is the Calorex range of purpose built, stylish dehumidifiers for humidity control and energy recovery in indoor swimming pools and spas.

Key benefits of a Calorex dehumidifier:

- Installation on use
- Energy efficient
- Low temperature operation
- Available with air heating option
- Automatic operation
- Quality construction
- Optional features
- Simple installation
- Heat recovery to air

High-performance, low-cost Calorex

High-performance low-cost Calorex dehumidifiers minimise the need for costly air extraction. Operating on the heat pump principle, these high-performance units recirculate pool air – removing the moisture content and delivering warm, dry air back to the pool hall. By working in this way, they maintain a comfortable humidity, minimise condensation and keep heating costs at the lowest possible level.

Rapid installation, flexible operation

Fully self-contained units, Calorex dehumidifiers require minimal installation. When it comes to operation, units offer quiet, reliable and safe performance. Flexibility is built-in. Each unit comes with a specially styled barrel type discharge that allows air to be directed in an 80° range between horizontal and vertical, thus allowing installation at high or low level.*

* Only on DH33/55 models

Energy saving

Removing humidity from the air enables the Calorex to absorb latent energy and return it to the pool air as useful air heating. Its heat pump technology converts 2.5kW to air heating for every 1kW of electricity consumed – a real bonus for running costs! So that the best choice can be made, a full range of units is available. Each is supplied with full installation kits, and sound insulation. The Calorex dehumidifier range includes wall mounted and floor standing units.

Low temperature operation

Your pool hall still needs protection when you aren't using it, but economy dictates that you drop the air heating levels when you are away. The defrost versions operate down to temperatures just above freezing to ensure moisture control even in cold conditions.

Calorex dehumidifiers maintain a comfortable humidity, minimise condensation and keep heating costs at the lowest possible level



Wall mounted DH33/55

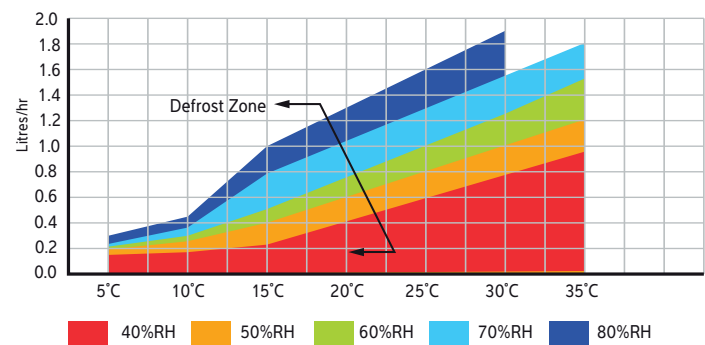
The highest moisture extracting wall mounted dehumidifier for lowest power consumption of its type.

- ☑ High moisture extraction for low power consumption
- ☑ Corrosion free, easy to clean composite cover
- ☑ Zero ozone depleting refrigerant
- ☑ Low internal operating pressures = long useful life
- ☑ Fan cycle or continuous mode
- ☑ Air outlet adjustable to horizontal or vertical
- ☑ Many options for flexible installation

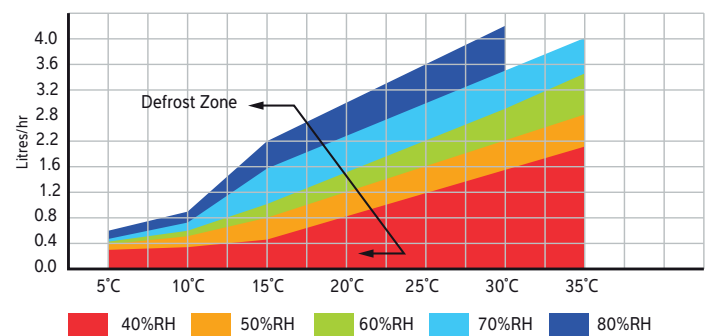
Specifications	Units	DH33	DH55
Performance (standard unit)			
Operating temperature range	°C	15-35	15-35
Dehumidification @ 30°C/60% RH	l/hr	1.25	2.5
Heat recovered to air @ 30°C/60% RH	kW	1.9	3.5
Air flow	m ³ /h	440	740
External static pressure	Pa	0	0
Sound pressure level @ 3m	dB(A)	48	48
Refrigerant		R407c	R407c
Electrical data			
Supply	V/ph/Hz	230/1/50	230/1/50
Nominal power consumption	kW	0.75	1.2
FLA	Amp	4.4	7.5
Maximum supply fuse	Amp	10	13
Maximum supply fuse electric heater LRA (compressor start)	Amp	20	32
	Amp	15	30
Heater			
Type		Optional LPHW	Optional LPHW
Heat output @ 80°C flow	kW	3	5
Flow rate	l/min	5	5
Type		Optional electric	Optional electric
Heat output	kW	2	4
Dimensions			
Width	mm	780	1245
Depth	mm	255	255
Height	mm	653	653
Weight	kg	37	58
Condensate drain size (flexible plastic hose)	mm ID	10	10

Performance data

DH33



DH55



Options

- Through the wall version
- LPHW air heater
- Remote humidistat/Combistat (12V)
- Hot gas defrost (allows operation to 5°C air temperature)
- Air filter

DH33/DH55



Calorex reserve the right to modify this specification at any time

Wall mounted DH44/66

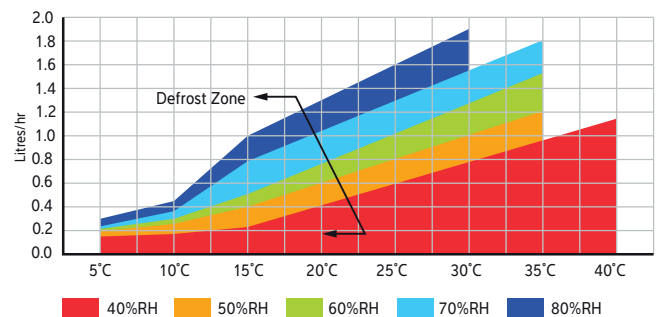
The most-quiet dehumidifier available that can be wall mounted or free-standing.

- ☑ High moisture extraction for low power consumption
- ☑ Corrosion free, easy to clean cover with easy-clean air filter
- ☑ Super quiet operation, scroll compressor
- ☑ Fresh air introduction point
- ☑ Low internal operating pressures = long useful life
- ☑ Air outlet adjustable to horizontal or vertical
- ☑ Fan cycle or continuous mode
- ☑ Flexible mounting

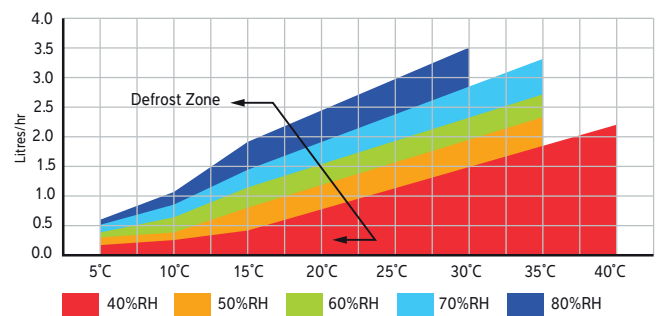
Specifications	Units	DH44	DH66
Performance (standard unit)			
Operating temperature range	°C	17-35	17-35
Dehumidification @ 30°C/60% RH	l/hr	1.25	2.41
Heat recovered to air @ 30°C/60% RH	kW	1.6	3.0
Air flow	m ³ /h	440	740
External static pressure	Pa	0	0
Sound pressure level @ 3m	dB(A)	42	44
Refrigerant		R407c	R407c
Electrical data			
Supply	V/ph/Hz	230/1/50	230/1/50
Nominal power consumption	kW	0.51	1.2
FLA	Amp	3.5	6
Maximum supply fuse	Amp	10	13
LRA (compressor start)	Amp	12	26
Heater			
Type		Optional LPHW	Optional LPHW
Heat output @ 80°C flow	kW	3.3	5.8
Flow rate	l/min	4.8	10.2
Dimensions			
Width	mm	880	1345
Depth	mm	340	340
Height	mm	1000	1000
Weight	kg	57	74
Condensate drain size (flexible plastic hose)	mm ID	16	16

Performance data

DH44



DH66



Calorex LPHW units are supplied with a three way valve internally mounted and wired for control by an optional 12V thermostat¹.

Options

- LPHW air heater complete with three way valve and 12V thermostat interlock
- Remote humidistat/Combistat (12V)
- Hot gas defrost (allows operation to 5°C air temperature)

DH44/DH66



¹. Applicable to DH44/66/75/110

Calorex reserve the right to modify this specification at any time

High capacity DH75/110

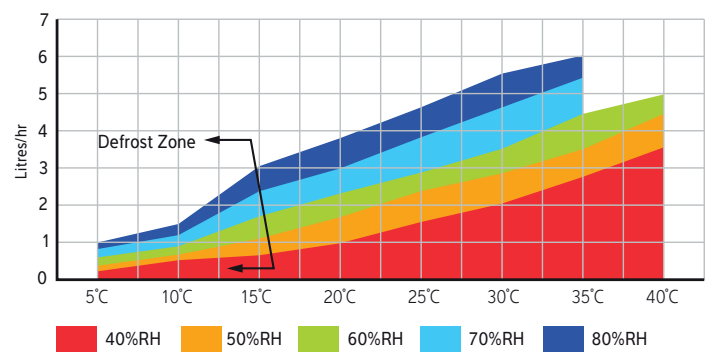
Floor standing high performance dehumidifiers with additional air heating options.

- ☑ High moisture extraction for low power consumption
 - ☑ Corrosion free, easy to clean aluminium air grille with easy clean air filter
- ☑ Zero ozone depleting refrigerant
 - ☑ Low internal operating pressures = long useful life
- ☑ Adjustable air outlet
 - ☑ Two speed fan
 - ☑ Hot gas defrost (allows operation to 5°C air temperature)

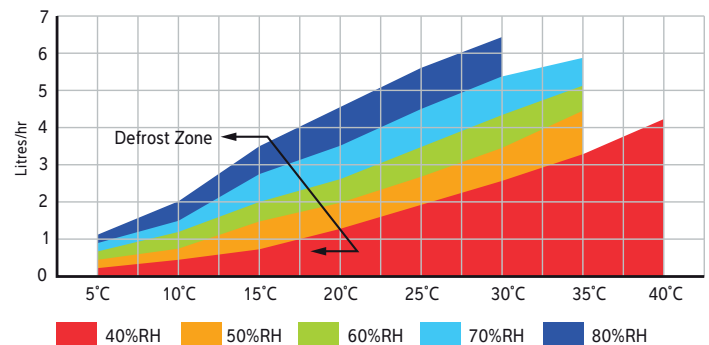
Specifications	Units	DH75	DH110
Performance (standard unit)			
Operating temperature range	°C	5-40	5-35
Dehumidification @ 30°C/60% RH	l/hr	3.6	4.5
Heat recovered to air @ 30°C/60% RH	kW	4.0	5.2
Air flow (max)	m ³ /h	1180	1180
Sound pressure level @ 3m	dB(A)	53	53
Refrigerant		R407c	R407c
Electrical data			
Supply	V/ph/Hz	230/1/50	230/1/50
Nominal power consumption	kW	1.5	2.1
FLA	Amp	9.5	12
Maximum supply fuse	Amp	13	20
LRA (compressor start)	Amp	55	66
Heater			
Type		Optional LPHW	Optional LPHW
Heat output @ 80°C flow	kW	8.9	8.9
Flow rate	l/min	9.6	9.6
Dimensions			
Width	mm	1520	1520
Depth	mm	385	385
Height	mm	796	796
Weight	kg	144	144
Condensate drain size (brass compression)	mm	15	15

Performance data

DH75



DH110



When it is more convenient to mount the Calorex units in a plant room adjacent to the pool hall, the TTW variant provides all necessary items including wall grilles and air turning ducts. LPHW option is also available in TTW form.

Options

- Through the wall version
- LPHW air heater complete with 3 way valve and 12V thermostat interlock
- Remote humidistat/Combistat (12V)
- 400V-3ph option for DH110

DH75/DH110



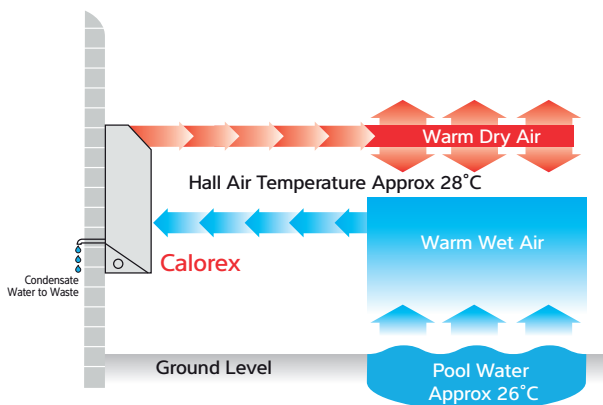
Calorex reserve the right to modify this specification at any time

Air flow – how it works

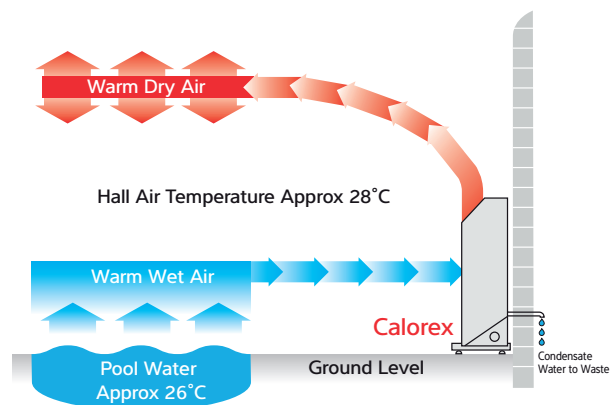
Modern reliable technology purpose designed for swimming pools.

Each Calorex unit includes an adjustable humidistat controlling relative humidity (RH) in the ideal range of 55% – 65%. With RH under control, condensation can be minimised by selecting the most appropriate installation from the schematics shown below. Note: vulnerable areas such as windows, roof lights or other cold bridges may form condensation at low external air temperatures unless dry air is blown directly onto them.

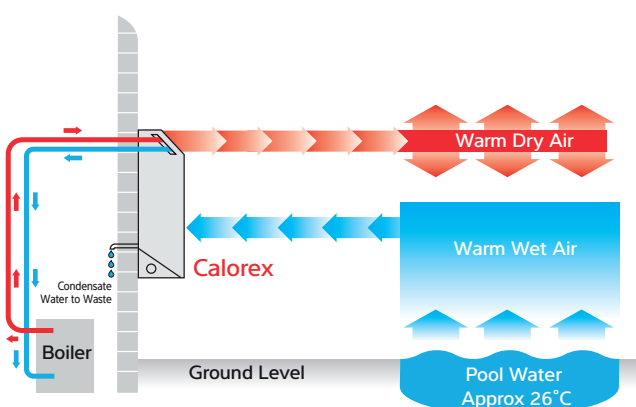
Wall mounted air flow



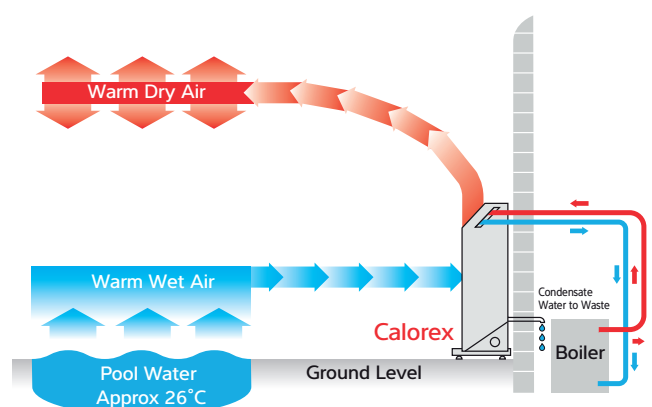
Floor standing air flow



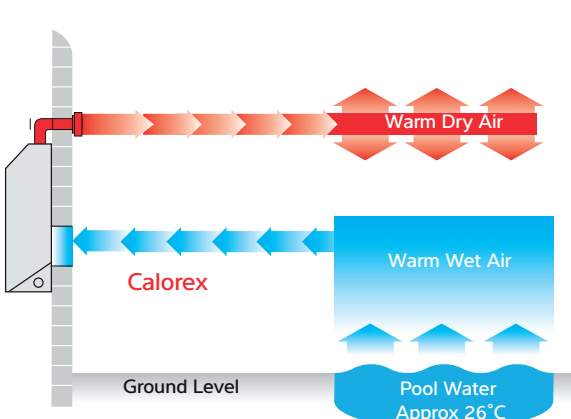
Wall mounted with air heating



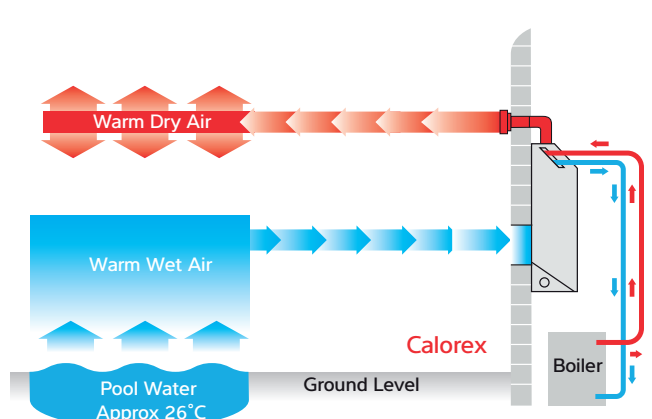
Floor standing with air heating



Through the wall



Through the wall with air heating





Calorex is a British company that design and manufacture products in the UK and Denmark

Technical support and service

Comprehensive technical support is provided by our experienced and well qualified team



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